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CLAIMS

[Claim(s)]

[Claim 1] It has the flexibility in which a motion of a living body can be followed, and has the sheet-like base material with which the whole surface is moreover a field for pasting to a living body. On the whole surface of the base material While making two or more electrodes for catching a living body's electrical signal have, to the above-mentioned base material The record element for recording the electrical signal caught with the above-mentioned electrode and the cell for operating it are made to have. And the above-mentioned base material is a bioelectricity signal record implement which has sufficient magnitude to surround an above-mentioned record element and an above-mentioned electrode in watertight, and is characterized by making shielding nature for the field for the above-mentioned pasting intercepting the electrical noise turned to the above-mentioned electrode side from an opposite side have at this base material.

[Claim 2] It is formed with the ingredient which has the flexibility in which a motion of a living body can be followed, and has waterproofness, and has the sheet-like base material with which the whole surface is moreover a field for pasting to a living body. On the whole surface of the base material While making it have where two or more electrodes for catching a living body's electrical signal are detached distantly [mutual] The record element for recording the electrical signal caught with the above-mentioned electrode and the cell for operating it are made to have. Moreover, those arrangement locations It has arranged in the mid-position between the above-mentioned two or more electrodes. Moreover, the magnitude of the above-mentioned base material The above-mentioned record element, It has formed more greatly [in order to surround a cell and an electrode in watertight] enough than the array pattern of the above-mentioned electrode. To this base material The bioelectricity signal record implement characterized by making the shielding nature for intercepting the electrical noise turned to the above-mentioned electrode side from an opposite side with the field for the above-mentioned pasting have.

[Claim 3] The array of two or more above-mentioned electrodes is a bioelectricity signal record implement according to claim 2 characterized by having made it the same array as the array of two or more predetermined point of measurement in a living body.

[Translation done.]

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Industrial Application] This invention relates to the bioelectricity signal record implement which can move to especially a living body and one and enables it to have taken record by a living body's usual condition of life about the bioelectricity signal record implement for recording a living body's electrical signal, for example, electrocardio, an electroencephalogram, or a myo electric signal etc.

[0002]

[Description of the Prior Art] The pocket-type electrocardiograph has recorded the electrocardio which the electrode for electrocardio fetch was made to adhere at the point of measurement of the body, fixed the recorder to the waist by the belt, and was taken out with the above-mentioned electrode in the above-mentioned recorder as an example of this kind of bioelectricity signal record implement. In such a bioelectricity signal record implement, record by the usual conditions of life, such as under an indoor meal and sleep, can be taken during a walk of the outdoors. This record has the usefulness which is greatly useful to a diagnosis of a patient's disease. However, in this conventional bioelectricity signal record implement, it had to demount at the time of bathing and, for this reason, there was a trouble of could not take record in case the active state of the internal organs of the body called bathing changes a lot, and leaving a part of insufficiency to the above-mentioned diagnosis.

[0003]

[Problem(s) to be Solved by the Invention] In order to solve the above-mentioned trouble, an electrocardiograph, the electrode, and a power source are incorporated into-like [paper], adhesives are attached to one side of an electrocardiograph, and sticking the piece of pasting on the skin is proposed. However, the data of an electrocardiograph will be incorrect-recorded by the telephone, or such an idea will take a bath, if a wearer uses a cellular phone, when the body is moved, has the trouble that water is flooded and data break, and has the fault which is hard to put in practical use.

[0004] it aims at being able to take the very real right record which included also while the invention in this application is made in order to solve the trouble (technical technical problem) of the above-mentioned conventional technique , and it took a bath also in use of the cellular phone under above walks and the body was moved , and offering the bioelectricity signal record implement which might make it have made it the exact nature of the above-mentioned diagnosis improve extremely -- .

[0005]

[Means for Solving the Problem] In order to attain the above-mentioned purpose, the bioelectricity signal record implement in the invention in this application It has the flexibility in which a motion of a living body can be followed, and has the sheet-like base material with which the whole surface is moreover a field for pasting to a living body. On the whole surface of the base material While making two or more electrodes for catching a living body's electrical signal have, to the above-mentioned base material The record element for recording the electrical signal caught with the above-mentioned electrode and the cell for operating it are made to

have. And the above-mentioned base material has sufficient magnitude to surround an above-mentioned record element and an above-mentioned electrode in watertight, and made this base material equipped with shielding nature for the field for the above-mentioned pasting to intercept the electrical noise turned to the above-mentioned electrode side from an opposite side.

[0006]

[Function] If it sticks on a living body, an electrode will catch the living body's electrical signal, and the caught electrical signal will be recorded on a record element. While a base material surrounds a record element and an electrode in watertight in the pasting condition to a living body, even if it surrounds also electromagnetic, therefore a living body's perimeter is covered by the electric wave of a cellular phone or is surrounded with the water of a bath, contact in the water does not have an electrode and it catches a living body's electrical signal correctly. As long as the pasting condition of the electrode in both sides is maintained, the record element arranged especially between electrodes has neither a possibility of exfoliating, nor a possibility that it may be flooded, and is protected.

[0007]

[Example] The drawing in which the example of this application is shown below is explained. 1 is a bioelectricity signal record implement and shows the electrocardio record implement which recorded electrocardio as an example of a living body's electrical signal. 2 is a sheet-like base material and has the flexibility in which a motion of a living body can be followed. The inside from which 3 is a field for pasting to a living body in this base material 2, and 4 show external surface, respectively. The base material 2 of the shape of this sheet is somewhat larger than the magnitude of those predetermined array patterns, in order to surround two or more below-mentioned electrodes in watertight, respectively, and it is formed in the magnitude which can moreover also secure the part for holding a record element, a cell, a switch, etc. In order that thickness may raise a sense of togetherness with the skin, about 2mm is well thin. The structure of the above-mentioned base material 2 is explained. 5 is the base and the synthetic-resin sheet which has waterproofness in order to aim at waterproofing of the below-mentioned electrode, a record element, a cell, etc. is used. As others, use of rubber, the paper which performed waterproofing, cloth, etc. is also possible. With the field for the above-mentioned pasting, the shielding nature for intercepting the electrical noise turned to an electrode side from an opposite side can give this base 5 on the whole surface. For example, the electric conduction film for electric shielding is built in in the shape of a layer. 6 is the adhesives for giving the adhesive property to a living body to a base material 2, and even if it gets wet, what can maintain sufficient bond strength is used. And insulating adhesion material is used for an insulation of an electrode. Next, 8 is a member for protecting the above-mentioned inside 3 from unnecessary adhesion in other objects, or adhesion of dust, it skins from an inside 3 and the piece of exfoliation with easy picking is illustrated. This piece 8 of exfoliation has wrap magnitude for the whole surface of the above-mentioned inside 3. It is an energization inhibition member, a wafer-like thing is used from the purpose of a miniaturization, and 9 is attached in the piece 8 of exfoliation for the piece 8 of exfoliation, and one-removal.

[0008] Next, 11 shows the electrode for catching a living body's electrical signal with which the inside of the above-mentioned base material 2 was equipped. The array of two or more electrodes 11 shown in drawing 1 is changed into the same condition as the array of two or more predetermined point of measurement in a living body. An electrode 11 is the same structure as a well-known electrode, and the body of an electrode made from a metallic material with disc-like 12 and 13 are conductive paste. Next, 15 is a record element for recording the electrical signal caught with the above-mentioned electrode 11, and in order to lessen foreign body sensation in the busy condition of this record implement 1, what it is thin and is small, for example, an integrated circuit, is used. This record element 15 is equipped with the output terminal for taking out the recorded electrical signal. The inside side of the base 5 is equipped with the record element 15 so that waterproofing and electric shielding of electrical noise can be aimed at with the base 5. 16 is the electric path cord of an electrode 11 and the

record element 15. 17 is the cell used as a power source for operating the above-mentioned record element 15. This cell 17 is also good to use the thin thing called a paper cell by the same reason as the above-mentioned record element. 18 is a switch member for carrying out ON OFF of the energization to the record element 15 from a cell 17, it is maintained at non-switch-on in the state of wearing of the energization inhibition member 9, and what will be in switch-on by removal of the energization inhibition member 9 is used.

[0009] The usage and busy condition of a thing of the above-mentioned configuration are explained. The piece 8 of exfoliation is removed first and an inside 3 is exposed. by removal of the piece 8 of exfoliation, if the energization inhibition member 9 is made into one, this is removed from the switch member 18 (or — separately — a hand — removing), and the switch member 18 flows, it energizes from a cell 17 to the record element 15, and the record element 15 starts record actuation. An inside 3 sticks the record implement 1 of this condition on the body in the condition of turning to a skin side, using adhesives 6. Attachment is performed so that an inside 3 may enclose each perimeter enclosure also about which of two or more electrodes 11 and the skin may be pasted. An attachment location is performed so that the record implement 1 may come to the predetermined part of the body. Since each electrode 11 serves as an array beforehand decided like the above, it is only stuck on the predetermined part of the body by making the record implement 1 into one unit as mentioned above, and two or more electrodes 11 adhere at the predetermined point of measurement in the body, respectively. Therefore, it also enables an amateur to take proper record in proper point of measurement as easy attachment actuation is also.

[0010] Where the record implement 1 is stuck as mentioned above, it lives the same life as usually. In the process, electrocardio is always caught with each electrode 11 in each above-mentioned point of measurement, and the caught electrocardio is recorded on the record element 15 one after another. Bathing and swimming are also possible, not to mention he can walk in the state of [above-mentioned] wearing or it can run. That is, in these bathing or swimming, the base material 2 stuck to the skin prevents surrounding an electrode 11 and water touching it. Moreover, even if a wearer approaches a busy cellular phone, a noise does not go into an electrode 11 and the record element 15. Therefore, a bad influence does not attain to that an electrode 11 catches the above-mentioned electrocardio at all, but the above-mentioned record is continued normal.

[0011] If record of the electrocardio of predetermined time is able to be taken as mentioned above, the record implement 1 is removed from the body, and with the equipment of a computer and others, record of the record element 15 will be read and analyzed, and will be used for a diagnosis.

[0012] Next, when one in a living body is sufficient as the part which should catch a bioelectricity signal, you may have only one, the configuration 11, i.e., above-mentioned electrode, within the limits with which the above-mentioned record implement is shown in drawing 1 according to a two-dot chain line 21. When it is for a **** record implement to record an electroencephalogram and the above-mentioned base material does not have electric shielding nature, the cap equipped with electric shielding nature on it after wearing of the record implement to a head may be covered, and the bad influence of electrical noise may be removed.

[0013]

[Effect of the Invention] As mentioned above, since the record implement 1 of the invention in this application is equipped with the record element 15 for recording the electrode 11 for catching a living body's electrical signal to the sheet-like base material 2, and the caught signal, it has the features that record of the bioelectricity signal in the usual everyday life conditions, such as under an indoor meal and sleep, can be taken during a walk of the outdoors as sticking on the body is also. And it is effective in record not being confused, even if it is familiar and a cellular phone is used, since the shielding nature for intercepting the electrical noise turned to the above-mentioned electrode side from an opposite side with the field for the above-mentioned pasting is made to have in that case at the base material. And since it can prevent

water adhering to an electrode 11 that it is also with a base material 2 and the above-mentioned signal can be taken even if the active state of the internal organs of the body is during bathing which changes very a lot when taking record as mentioned above, the real record also including the case where the active state of the above-mentioned internal organs changes a lot can be taken, and there is usefulness which may greatly be utilized for a diagnosis. In that case, if the base material which wraps an electrode and it in the both sides of an important record element is arranged like support, while the waterproofing effectiveness improves, adhesion conditions will also improve, exfoliation will be prevented, and long-term use will be attained.

[0014] Furthermore, since two or more electrodes 11 adhere at the predetermined point of measurement in the body, respectively, they have the effectiveness it is ineffective to an amateur being able to take record proper in proper point of measurement as easy attachment actuation is also only by sticking it on the predetermined part of the body by making the bioelectricity signal record implement 1 into one unit, if it is in this invention and the array of two or more electrodes 11 is carried out to the same array as the array of two or more predetermined point of measurement in a living body.

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(71)Applicant : OTAKE TSUTOMU

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(72)Inventor : OTAKE TSUTOMU

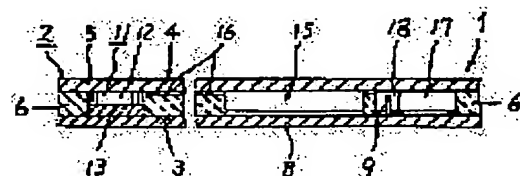
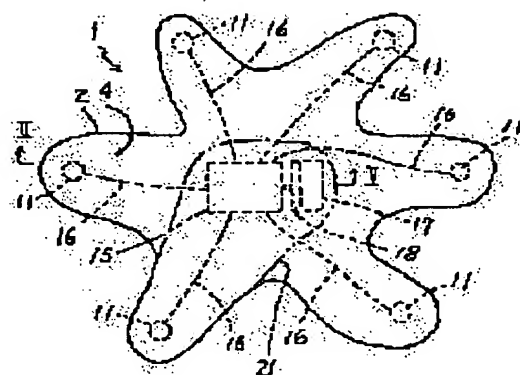
(54) LIVING BODY ELECTRIC SIGNAL RECORDING TOOL

(57)Abstract:

PURPOSE: To enable exact electric signal reception even when a portable telephone is used during walking, and also, against corporal motion during bathing by arranging plural electrodes and memory elements, which catch the electric signal, to a rate-shaped substrate stuck to a living body.

CONSTITUTION: In a living body's electric signal recorder 1, a switch member 18 conducts an electric current from a dry cell 17 to a recording element 15 when a peeling piece 8 is eliminated. Then, the recording element 15 starts recording operation. A recording material 1 in this state is stuck to the body with an adhesive agent 6 so that its inside 3 may face the skin. Plural electrodes 11 are fitted to the body at their respective specified measuring points, in which state the body can even bath and swim. A substrate 2 which adheres tightly to the skin encloses the electrodes 11 to prevent water from touching them.

Even though the wearer approaches a portable telephone under conversation, noise does not enter both electrodes 11 and recording element 15. When the electrocardiac record for the specified duration is obtained, the recording material 1 is peeled off from the body. Then, the record by the recording element 15 is read by a computer or other device, analyzed and utilized for the diagnosis.



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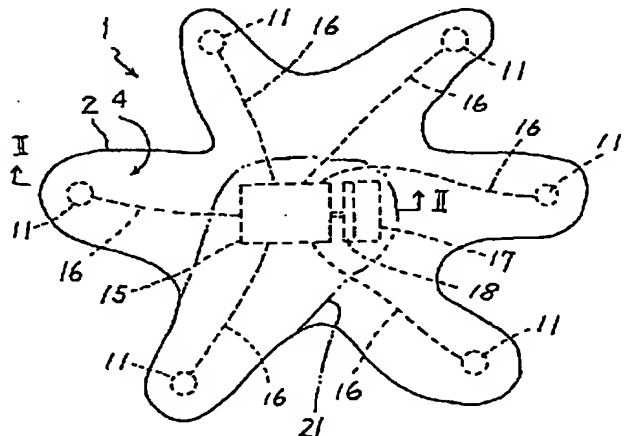
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(22) 出願日	平成5年(1993)2月23日	(72) 発明者	大竹 務
			愛知県豊川市四ッ谷町3-60-1
		(74) 代理人	弁理士 佐竹 弘

(54) 【発明の名称】 生体電気信号記録具

(57) 【要約】

【課題】 生体の通常的生活状態での生体電気信号の記録をとるものにおいて、特に歩行中、話中の携帯電話に近づいたとき、食事中及び睡眠中は勿論のこと、入浴中をも含めた極めてリアルな記録をとることができるようにする。

【解決手段】 生体の動きに追従可能な柔軟性を有する基材に、生体の電気信号を捕える為の電極と、電気信号を記録する為の記録要素とが備えてある。基材を生体に貼付すると、生体の電気信号を電極が捕え、電気信号を記録要素に記録する。生体への貼付状態において基材は電気ノイズを防ぎ、電極を水密的に包囲する。



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SA JP

【特許請求の範囲】

【請求項 1】 生体の動きに追従可能な柔軟性を有し、しかも一面が生体に対する貼付用の面となっているシート状の基材を有し、その基材の一面には、生体の電気信号を捕える為の複数の電極を備えさせると共に、上記基材には、上記電極により捕えられた電気信号を記録する為の記録要素と、それを作動させるための電池とを備えさせ、しかも上記基材は上記の記録要素と電極とを水密的に包囲するに充分な大きさを有しており、この基材には、上記貼付用の面とは反対の側から上記電極の側へ向けての電氣的ノイズを遮断する為のシールド性を備えさせてあることを特徴とする生体電気信号記録具。

【請求項 2】 生体の動きに追従可能な柔軟性を有し、かつ、防水性を有する材料で形成され、しかも一面が生体に対する貼付用の面となっているシート状の基材を有し、その基材の一面には、生体の電気信号を捕える為の複数の電極を相互に遠く離れた状態で備えさせると共に、上記電極により捕えられた電気信号を記録する為の記録要素と、それを作動させるための電池とを備えさせ、しかもそれらの配設位置は、上記複数の電極相互間の中間位置に配設してあり、その上、上記基材の大きさは上記記録要素と、電池と、電極とを水密的に包囲する為により上記電極の配列パターンよりも充分に大きく形成してあり、この基材には、上記貼付用の面とは反対の側から上記電極の側へ向けての電氣的ノイズを遮断する為のシールド性を備えさせてあることを特徴とする生体電気信号記録具。

【請求項 3】 上記複数の電極の配列は生体における所定の複数の測定点の配列と同じ配列にしてあることを特徴とする請求項 2 記載の生体電気信号記録具。

【発明の詳細な説明】

【0001】

【産業上の利用分野】 本発明は生体の電気信号例えば心電、脳電又は筋電などを記録する為の生体電気信号記録具に関し、特に生体と一体に移動できて生体の通常の生活状態での記録をとることができるようにしてある生体電気信号記録具に関する。

【0002】

【従来の技術】 この種の生体電気信号記録具の一例として携帯式的心電計は、心電取出用の電極を身体の測定点に付着させ、記録器をベルトで腰に固定し、上記電極で取出した心電を上記記録器において記録するようにしてある。このような生体電気信号記録具では、屋外の歩行中、屋内での食事中や睡眠中など通常の生活状態での記録をとることができる。この記録は患者の疾患の診断に大いに役立つ有用性がある。しかしこの従来の生体電気信号記録具では、入浴時には取外さねばならず、この為、入浴という身体の内臓の活動状態が大きく変化するときの記録がとれなくて上記診断に一部の不充分さを残す問題点があった。

【0003】

【発明が解決しようとする課題】 上記問題点を解決する為、紙状の中に心電計、導子、電源を組み込んで心電計の片面に接着剤を付け、貼付片を肌に貼るようにすることが提案されている。しかし、そのようなアイデアは、着用者が携帯電話を利用すると、その電話によって心電計のデータが誤記録されたり、風呂に入って体を動かすと水が浸水してデータが壊れる問題点があり、実用化し難い欠点がある。

10 【0004】 本願発明は上記従来技術の問題点（技術的課題）を解決する為になされたもので、上記のような歩行中においての携帯電話の使用においても、また風呂に入って体を動かしているときも含めた極めてリアルな正しい記録をとることができて、上記診断的確性を極めて向上させ得るようにした生体電気信号記録具を提供することを目的としている。

【0005】

【課題を解決するための手段】 上記目的を達成する為、に、本願発明における生体電気信号記録具は、生体の動きに追従可能な柔軟性を有し、しかも一面が生体に対する貼付用の面となっているシート状の基材を有し、その基材の一面には、生体の電気信号を捕える為の複数の電極を備えさせると共に、上記基材には、上記電極により捕えられた電気信号を記録する為の記録要素と、それを作動させるための電池とを備えさせ、しかも上記基材は上記の記録要素と電極とを水密的に包囲するに充分な大きさを有しており、この基材には、上記貼付用の面とは反対の側から上記電極の側へ向けての電氣的ノイズを遮断する為のシールド性を備えさせたのである。

30 【0006】

【作用】 生体に貼付するとその生体の電気信号を電極が捕え、捕えられた電気信号は記録要素に記録される。生体への貼付状態において基材は記録要素と電極を水密的に包囲すると共に、電磁的にも包囲し、従って生体の周囲が携帯電話の電波で覆われたり、風呂の水で囲まれても電極はその水との接触はなく、生体の電気信号を正しく捕える。特に電極相互間に配置された記録要素等は、両側にある電極の貼付状態が維持されるかぎり、剥落する恐れも、浸水する恐れもなく守られる。

40 【0007】

【実施例】 以下本願の実施例を示す図面について説明する。1は生体電気信号記録具で、生体の電気信号の一例として心電を記録するようにした心電記録具を示す。2はシート状の基材で、生体の動きに追従可能な柔軟性を有している。3は該基材2において生体への貼付用の面となっている内面、4は外面を夫々示す。該シート状の基材2は後述の複数の電極を夫々水密的に包囲する為にそれらの所定の配列パターンの大きさよりも一回り大きく、しかも、記録要素や電池、スイッチ等を保持する為の部分も確保できる大きさに形成してある。厚みは皮膚

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との一体感を高めるために薄いのが良く例えば2mm程度である。上記基材2の構造を説明する。5はベースで、後述の電極、記録要素、電池などの防水を図るために、例えば防水性を有する合成樹脂シートが用いられる。その他としては、ゴム、防水加工を施した紙、布等の利用も可能である。該ベース5には、上記貼付用の面とは反対の側から電極の側へ向けての電氣的ノイズを遮断する為のシールド性が全面に持たされる。例えば電氣的シールド用の導電膜が層状に内蔵される。6は基材2に生体に対する接着性を持たせる為の接着剤で、濡れても十分な接着強度を保てるものが用いられる。しかも電極の絶縁の為に絶縁性の粘着材が利用される。次に8は上記内面3を他物への無用の接着や塵の付着から保護するための部材で、内面3からはぎ取りが容易な剥離片が例示される。該剥離片8は上記内面3の全面を覆う大きさを有している。9は通電阻止部材で、小型化の目的から小片状のものが用いられ、剥離片8と一体的な除去の為に剥離片8に取付けてある。

【0008】次に11は上記基材2の内面に備えられた生体の電気信号を捕える為の電極を示す。図1に示される複数の電極11の配列は、生体における所定の複数の測定点の配列と同じ状態にしてある。電極11は周知の電極と同様の構造で、12は円盤状の金属材料製の電極本体、13は導電ペーストである。次に15は上記電極11により捕えられた電気信号を記録する為の記録要素で、該記録具1の使用状態で、異物感を少なくする為に薄くて小型のもの、例えば集積回路が用いられる。該記録要素15は記録した電気信号を取り出すための出力端子を備えている。記録要素15はベース5によって防水及び電氣的ノイズの遮蔽を図り得るようベース5の内面側に備えてある。16は電極11と記録要素15との電氣的な接続線である。17は上記記録要素15を動作させるための電源として用いられた電池である。この電池17も上記記録要素と同様の理由で紙電池と称せられる薄型のものを用いるのがよい。18は電池17から記録要素15への通電を入切する為のスイッチ部材で、通電阻止部材9の装着状態では非導通状態に保たれ、通電阻止部材9の除去によって導通状態となるものが用いられる。

【0009】上記構成のものの使用法及び使用状態を説明する。先ず剥離片8を剥し、内面3を露出させる。剥離片8の除去により、もし通電阻止部材9が一体してあるとこれはスイッチ部材18から除去され（又は別途手で除去し）、スイッチ部材18が導通して電池17から記録要素15に通電され、記録要素15は記録動作を開始する。この状態の記録具1を接着剤6を利用して内面3が皮膚の側を向く状態で身体に貼り付ける。貼り付けは、複数の電極11のどれについても夫々の全周囲を内面3が取り囲んで皮膚に接着するように行う。貼り付け場所は、記録具1が身体の所定の箇所に来るように行う。各電極11は前記の如く予め決められた配列となっているため、上

記のように記録具1を1単位としてそれを身体の所定の箇所に貼り付けるだけで、複数の電極11は夫々身体における所定の測定点に付着する。従って素人でも、簡単な貼り付け操作でもって、適正な測定点で適正な記録をとることが可能となる。

【0010】上記のように記録具1を貼り付けた状態で普段と同様の生活をする。その過程において心電が上記各測定点において各電極11で常時捕えられ、その捕えられた心電が記録要素15に次々と記録される。上記装着状態では歩いたり走ったりできるは勿論のこと、入浴や水泳も可能である。即ち、それら入浴や水泳の場合、皮膚に密着する基材2は電極11を包囲してそれに水が触れることを防ぐ。また着用者が話中の携帯電話に近接してもノイズは電極11にも、記録要素15にも入らない。従って電極11が上記心電を捕えることには何等悪影響が及ばず、上記記録が異常無く続行される。

【0011】上記のようにして所定時間の心電の記録がとれたならば、記録具1を身体から剥し、記録要素15の記録をコンピュータその他の装置によって読み取り及び解析し、診断に利用する。

【0012】次に生体電気信号を捕えるべき箇所が生体における1箇所でない場合、上記記録具は図1に2点鎖線21で示される範囲内だけの構成即ち上記電極11は一つだけ備えているものであっても良い。又該記録具が脳電を記録するためのものである場合、上記基材が電氣的シールド性を有していないときには、頭部への記録具の装着後その上に電氣的シールド性を備えたキャップを被って電氣的ノイズの悪影響を除去しても良い。

【0013】

【発明の効果】以上のように本願発明の記録具1は、シート状の基材2に生体の電気信号を捕える為の電極11と捕えられた信号を記録する為の記録要素15を備えているから、単に身体に貼り付けるだけでもって、屋外の歩行中、屋内での食事中や睡眠中など、通常の日常生活状態での生体電気信号の記録をとることができる特長がある。しかもその場合、基材には、上記貼付用の面とは反対の側から上記電極の側へ向けての電氣的ノイズを遮断する為のシールド性を備えさせてあるから身近で携帯電話が使用されても記録が乱れることのない効果がある。しかも上記のように記録をとる場合、身体の内臓の活動状態が非常に大きく変化する入浴中であっても、基材2でもって電極11に水が付着することを防いで上記信号をとることができるから、上記内臓の活動状態が大きく変化する場合をも含めたりアルな記録をとることができて、診断に大いに役立たせ得る有用性がある。その場合、重要な記録要素の両側に電極とそれを包む基材が、アンカーの如く配置してあると、防水効果が向上すると共に付着条件も向上し、剥落が防止され、長期使用が可能となる。

【0014】更に本発明にあつて複数の電極11の配列を

生体における所定の複数の測定点の配列と同じ配列にしておくと、生体電気信号記録具 1 を 1 単位としてそれを身体の所定の箇所に貼り付けるだけで、複数の電極 11 は夫々身体における所定の測定点に付着するから、素人でも、簡単な貼り付け操作でもって、適正な測定点で適正な記録をとることが可能となる効果がある。

【図面の簡単な説明】

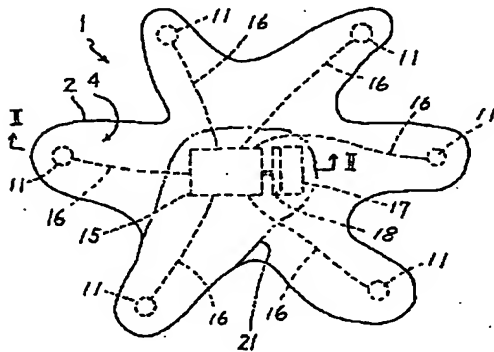
【図 1】平面図。

【図 2】11-11 線位置における一部省略拡大断面図。

【符号の説明】

- 1 生体電気信号記録具
- 2 シート状の基材
- 11 電極
- 15 記録要素

【図 1】



【図 2】

